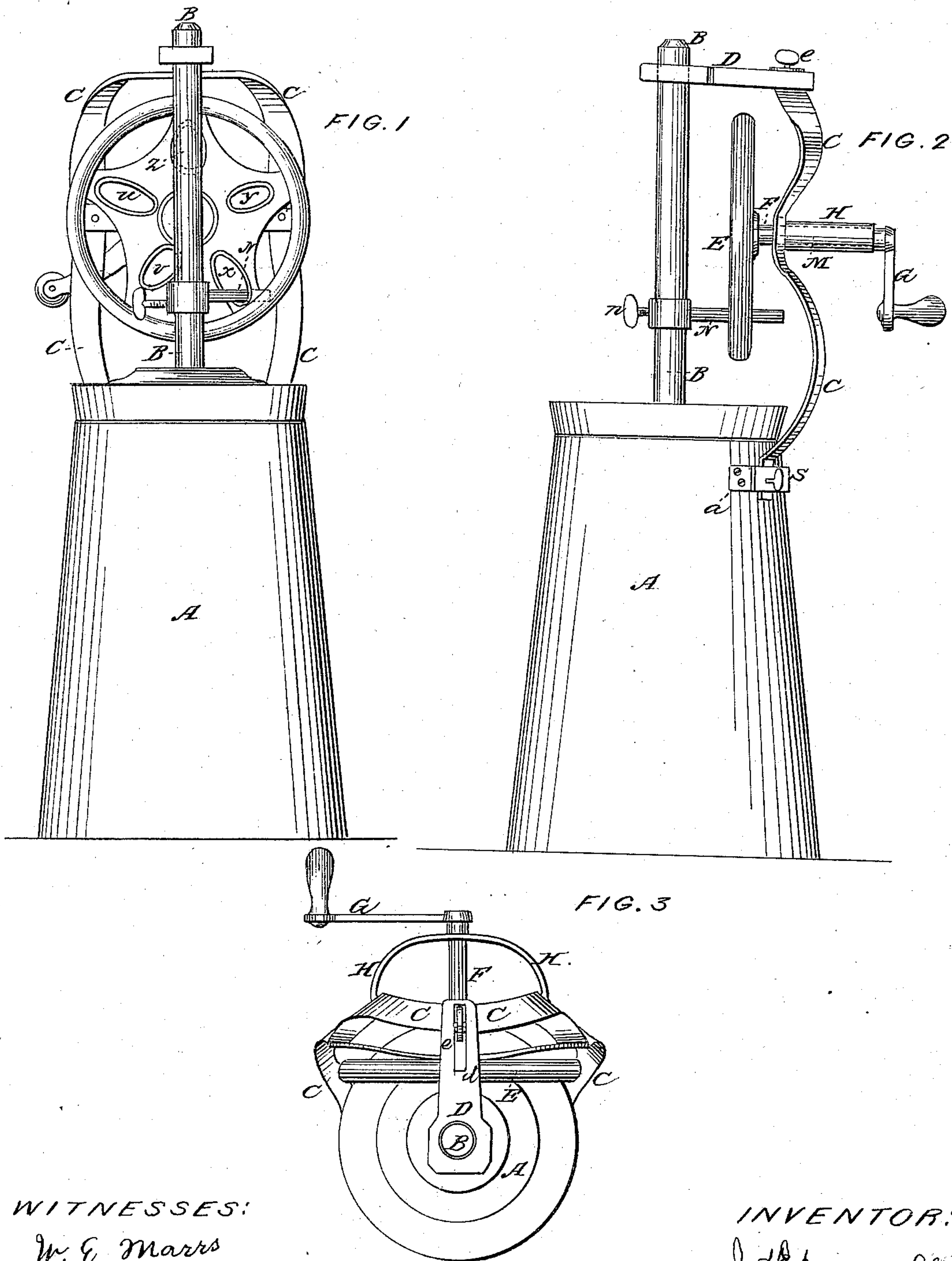


J. P. EDMONDS.

Churn.

No. 66,478.

Patented July 9, 1867.



WITNESSES:

W. E. Harris
G. L. Cohn

INVENTOR:

J. P. Edmonds

United States Patent Office.

JAMES P. EDMONDS, OF ROCHELLE, ILLINOIS.

Letters Patent No. 66,478, dated July 9, 1867.

IMPROVEMENT IN CHURNS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JAMES P. EDMONDS, of Rochelle, in the county of Ogle, and State of Illinois, have invented a new and useful Improvement in Churns; and I do hereby declare and make known that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and the letters and figures marked thereon, which form part of this specification.

My said invention consists in a novel attachment, to be applied upon an ordinary upright dasher-churn, whereby the required reciprocating vertical movement can be given to the dasher by turning a crank, said attachment being so constructed as to adapt the attachment to churns of different sizes, and also to regulate and vary the length of the dasher stroke as desired, as hereinafter more specifically set forth.

To enable those skilled in the art to understand how to construct and use my invention, I will proceed to describe the same with particularity, making reference in so doing to the aforesaid drawings, in which—

Figure 1 represents a front elevation of my invention.

Figure 2 represents a side elevation thereof; and

Figure 3 is a plan or top view of the same.

Similar letters of reference in the different figures denote the same parts of my invention.

A represents the upright churn, and B the vertical dasher-handle passing up through a central opening therefor in the cover of the churn. Upon the churn, near the top, are screwed two metallic straps, *a*, which are formed in such a manner as to make a recess in which to receive and support the lower ends of the removable standards C C, which unite at the top, as seen in the drawings, where there is attached a horizontal bar, D, secured by a set-screw passing through a slot, *d*, in said bar D. In the opposite end of said bar is a hole through which the dasher-handle B passes, and by which it is kept in a vertical position in its reciprocating movements. By means of the slot *d* and set-screw *e* the bar D may be adjusted to adapt its length to the requirements of churns of different sizes, which is a very important feature in my invention, as it enables the attachment to be manufactured separately from the churn, and furnished indiscriminately for churns of different sizes. The upright parts of the frame C C are connected at M, in fig. 2, by a transverse bar secured to the standards C, at each end, by bolts or rivets, or in any other suitable manner. A bow-frame, H, is also formed upon the standards C, being cast together with the same, as clearly seen in fig. 3. The said parts H and M of the portable attachment to the churn support in suitable bearings a shaft, F, which is provided with a crank, G, whereby the shaft F is revolved and the churn operated, as hereinafter described. Upon the inner end of the shaft F is fixed a wheel, E, which revolves with the shaft. This wheel E is constructed with a series of oval or elliptical openings, marked *u v x y z*, which openings are of unequal sizes and distances from the centre of the wheel. The arm N, which is provided with a collar at one end, slipping upon the dasher-handle B, but secured in any desired position thereupon by means of a set-screw, *n*, enters one of the aforesaid openings in the wheel, as shown in the opening *x* in fig. 1, so that the revolution of the wheel will give a vertical reciprocal movement to the dasher-handle and dasher as desired. To vary the length of the stroke of the said dasher, the pin or arm N is inserted in one of the different holes *u v x y z*, as the different distances which said holes are from the centre will obviously vary the stroke accordingly: the nearer the centre of the wheel the shorter the stroke, and *vice versa*. The oblong nature or form of the said holes in the wheel is necessary on account of the direction in which the arm N must enter the same. Arms N of different lengths, so as to adapt the machine to a long or short stroke of the dasher as required, may be provided if desired. The frame which is attached to the churn, and which supports the wheel and cross-bar D, is of cast iron, and may be manufactured and furnished separate from the churns, being made of different sizes if desired, and being also susceptible of further adaptation to different-sized churns, as before set forth.

Having described the construction and operation of my invention, I will now specify what I claim as new, and desire to secure by Letters Patent:

1. I claim the peculiarly-formed portable or removable supporting-frame C M H D, with the shaft F and wheel E, arranged as and for the purposes set forth.

2. I claim providing the bar D with a slot, *d*, when used in combination with the aforesaid portable frame and wheel and the dasher-handle, as and for the purposes specified.

3. I claim providing the wheel E with a series of unequal openings, *u v x y z*, in combination with the arm N upon the handle B, as and for the purpose described.

Witnesses:

W. E. MARRS,
L. L. COBURN.

J. P. EDMONDS.